

CLAIMS

1. A balloon comprising an envelope inflatable by a gas, an envelope
5 support formed by a mast, lighting means formed by at least one electric
arranged inside the envelope, means for electrical power supply of said lamp,
and electro-pneumatic blowing means for inflating the envelope, which is
made of translucent flexible material, wherein the top part of the mast passes
vertically through the envelope to give the latter a static rigidity at the level of
10 the diametrically opposed bottom pole and top pole, the mast being hollow and
comprising at least one air outlet orifice in its top part to perform inflation of the
envelope by the electro-pneumatic means.
2. Balloon according to claim 1, comprising means for detecting the wind
15 speed outside the envelope, and a control circuit connected to the means for
detecting the wind speed to control the electro-pneumatic means so as to
make the internal inflation pressure of the envelope vary according to the wind
speed.
- 20 3. Balloon according to claim 2, wherein the control unit is arranged to emit
either an inflation pressure increase signal when the wind speed increases or
an inflation pressure reduction signal when the wind speed decreases.
4. Balloon according to claim 2, wherein said means for detecting the wind
25 speed comprise an anemometer arranged at the top of the balloon.
5. Balloon according to claim 1, wherein the electro-pneumatic means
comprise a variable airflow fan arranged in an electrical cabinet at the foot of

the mast (14) and connected to the control circuit by an electrical connection extending inside the mast.

6. Balloon according to claim 1, wherein the electric lamp is securedly affixed
5 to the top part of the mast inside the envelope.

7. Balloon according to claim 1, wherein the bottom pole (18) of the envelope acting as traverse for the mast comprises two semi-circular half-flanges associated with a pair of zip fasteners for access to the inside of the envelope.
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8. Balloon according to claim 4, wherein the top pole of the envelope is equipped with a positioning washer bearing on a circular support plate at the top of the mast, said plate also acting as support for the anemometer.

15 9. Balloon according to claim 1, wherein the top part of the mast comprises a plurality of rungs constituting an internal ladder between the two poles.

10. Balloon according to claim 1, wherein the mast has a compartment subjected to atmospheric pressure for housing a ballast and starting circuit of
20 the lamp, said compartment being separated from the internal duct of the mast by a foam plug so as to enable maintenance of the ballast and starting circuit to be performed without stopping pressurization of the envelope.